5

# STEEL AUTHORITY OF INDIA LIMITED—BHILAI STEEL PLANT

## MINISTRY OF STEEL

# COMMITTEE ON PUBLIC UNDERTAKINGS 1996-97

ELEVENTH LOK SABHA

LOK SABHA SECRETARIAT
NEW DELHI

# FIFTH REPORT

# COMMITTEE ON PUBLIC UNDERTAKINGS (1996-97)

## (ELEVENTH LOK SABHA)

## STEEL AUTHORITY OF INDIA LIMITED—BHILAI STEEL PLANT

## MINISTRY OF STEEL

*[Action taken by Government on the recommendations contained in the 53rd Report of the Committee on Public Undertakings (10th Lok Sabha)]*

*Presented to Lok Sabha on 30.4.1997 and*
*Laid in Rajya Sabha on 02.05.1997*

LOK SABHA SECRETARIAT
NEW DELHI

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Corrigenda to 5th Report of Committee on Public Undertakings(1996-97)

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| 2 | 9 | Last | in October 1995. The Pre-feasibility | In October, 1995, the the pre-feasibility |
| 3 | 11 | 7 | quality of steel making a | quality of Steel making and |
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## COMMITTEE ON PUBLIC UNDERTAKINGS
## (1996-97)

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# INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorised by the Committee to present the Report on their behalf, present this Fifth Report on Action Taken by Government on the recommendations contained in the 53rd Report of the Committee on Public Undertakings (Tenth Lok Sabha) on Steel Authority of India Limited—Bhilai Steel Plant.

2. The 53rd Report of the Committee on Public Undertakings (1995-96) was presented to Lok Sabha on 8th March, 1996. Replies of the Government to all the recommendations contained in the Report were received on 18th February, 1997. The Committee on Public Undertakings considered and adopted this Report at their sitting held on 21st April, 1997.

3. An analysis of the Action Taken by the Government on the recommendations contained in the 53rd Report (1995-96) of the Committee is given in Appendix-II.

NEW DELHI;
*April* 25, 1997
*Vaisakha* 5, 1919*(S)*

G. VENKAT SWAMY,
*Chairman,*
*Committee on Public Undertakings.*

## CHAPTER I
## REPORT

The Report of the Committee deals with the action taken by Government on the recommendations contained in the 53rd report (Tenth Lok Sabha) of the Committee on Public Undertakings (1995-96) on Steel Authority of India Limited Bhilai Steel Plant which was presented to Lok Sabha on 8th March, 1996.

2. Action Taken notes have been received from Government in respect of all 27 recommendations contained in the Report. They have been categorised as follows:

(i) Recommendations/observations that have been accepted by Government:
Sl. Nos. 1, 3, 4, 8, 10, 11, 12, 14, 16, 17, 19, 20, 22, 23, 24 & 26

(ii) Recommendations/observations which the Committee do not desire to pursue in view of Government's replies:
Sl. Nos. 6 and 9

(iii) Recommendations/observations in respect of which replies of Government have not been accepted by the Committee:
Sl. Nos. 2, 7, 18 and 25

(iv) Recommendations/observations in respect of which final replies of Government are still awaited:
Sl. Nos. 5, 13, 15, 21 & 27

3. The Committee desire that final replies in respect of recommendations for which only interim replies have been given by Government should be furnished to the Committee expeditiously.

The Committee will now deal with the action taken by Government on some of their recommendations.

### A. EARLY CLEARANCE OF PROJECT FROM MOEF RECOMMENDATION (SL. 2, PARA No. 2)

4. The Committee had observed that although the expansion project was completed in March, 1988, its completion cost of Rs. 2283.63 crores had not been approved due to want of final clearance from the Ministry of Environment and Forests. The Committee had, therefore recommended an early clearance for a project which had already been completed.

5. In their reply, Government have stated that the 28 pollution control Action Taken Plan Schemes initiated in April, 1992 have been completed in October, 1995 and this has been intimated to Ministry of Environment and Forests by SAIL. The environmental Management Departments of

SAIL and Bhilai Steel Plant have also taken up the matter with Addl. Director(s), MOEF and M.P. Pollution Control Board respectively. Audit have pointed out that though BSP took up the issue with MOEF in July, 1996, there has not been any progress thereafter. The case is still pending with MOEF. The Ministry of Environment and Forests were stated to be awaiting the response of M.P. Pollution Control Board on the status of pollution control in respect of emissions from BSP.

6. The Committee are perturbed to note that even after a lapse of nine years since the completion of the project, it has not been possible to obtain clearance from the Ministry of Environment & Forests which is a must according to the Ministry of Steel before the revised estimates are submitted to PIB for approval. The Committee express serious concern over the fact that clearance has not yet been given to a project which had been completed as far back as in March, 1988 particularly when all the 28 pollution control schemes have been completed by SAIL in October, 1995. They, therefore, recommend that the matter should be taken up at the highest level with a view to obtain environmental clearance within 3 months for the project under intimation to the Committee.

## B. TRANSFER OF CIL WASHERIES RECOMMENDATION (SL. No. 7, PARA 7)

7. While observing that one of the major constraints being faced by Bhilai Steel Plant was shortage of indigenous coal of the desired quality resulting in the increase of imported coal, the Committee had desired that Government should take all possible steps to ensure sufficient availability of quality coal to BSP from domestic sources. They had recommended that the proposed transfer of some of the undeveloped washeries of Coal India Limited to SAIL should be finalised within three months.

8. In their reply, the Government have stated that out of the four coal blocks namely Parabatpur, Sitanalla, Mahal and Tasra allotted to SAIL by the Screening Committee on 4th October, 1995. Tasra was found to be techno-economically feasible and quarriable. Pre-feasibility report for Tasra has been prepared. The techno-economics of other three blocks are being examined. BCCL/CIL have also been requested to furnish the required details on exploration cost. The amount of Rs. 3.85 crores towards exploration charges for Tasra coal block has already been deposited by SAIL. SAIL has also been seeking certain mining clocks in west Bokaro coalfield for captive mining and the matter for the same was considered at the Screening Committee meeting of Ministry of Coal in April, 1996. In a recent meeting with CIL, it was agreed by them to consider a proposal for joint venture with SAIL in west Bokaro coalfield covering 10 medium coking coal blocks on the western side.

9. The Committee are constrained to observe that although four coal blocks namely Parabatpur, Sitanalla, Mahal and Tasra were allotted to SAIL by the Screening Committee in October, 1995. The pre-feasibility

report in respect of Tasra only has so far been prepared. The techno-economics of other three blocks are still under examination. The Committee desire that this should be completed urgently and they be informed of the results. They would also like to be apprised about the outcome of the proposal for joint venture with CIL in west Bokaro coalfield.

## C. STEEL MELTING SHOP
## RECOMMENDATION (SL. No. 13, PARA 13)

10. The Committee had observed that the rated capacity of steel melting shop-I (SMS-I) was 25 lakhs tonnes of steel ingots per annum as per DPR. However, from June, 1990 onwards, three 500 tonnes furnaces and three twin hearth furnaces with a capacity of 27 lakh tonnes per annum have been in operation. But the rated capacity has not yet been increased on the plea that the Company first proposed to go over to the basic oxygen furnace which have several advantages like faster processes of steel making and capability to produce very low to high carbon steel etc. The Committee, had therefore, desired that the economics of introduction of basic oxygen furnaces should be worked out and a final decision in this regard should be taken within three months so that at least the amount to be spent on overhauling of old open hearth furnaces or their replacement by twin hearth furnaces could be avoided.

11. Government in their reply have stated that the Steel Melting Shop-I is an open Hearth Furnace with a potential to produce 2.7 MT per annum of ingot steel. But due to non-availability of up-stream and down-stream balancing facilities, it has not been possible to achieve the same. For installation of these facilities, a substantial amount of funds is required. Introduction of Basic Oxygen Furnace (BOFs) was definitely superior to OH steel making process as far as productivity, quality of steel making a final yield were concerned. But this also needed a major investment decision. Based on MECON's recommendations and resource availability with SAIL, the production capacity at SMS-I was planned to be reduced and a new Steel Melting Shop (SMS-3) proposed to be installed with a capacity of 1.3 MT through Convertor Concast Route during 9th Five Year Plan. The capacity of SMS-3 was proposed to be further increased during 10th Five Year Plan. SMS-I might thus be phased out at that point of time. The decision in this regard would be taken depending upon the investment required *vis-a-vis* resource availability.

12. The Committee are not convinced with the reply furnished by Government in as much as it is not clear whether the economics of introduction of basic oxygen furnaces has been worked out. No decision has so far been taken on the MECON's recommendations regarding reducion of capacity of SMS-I and installation of a new Steel Melting Shop. The Committee would like to be informed when the recommendations were received from MECON. They also recommend that

a final decision in the matter should be taken at the earliest under intimation to the Committee.

## D. ROWGHAT IRON ORE MINING RECOMMENDATION (SL. No. 18, PARA 18)

13. The Committee were informed that in view of the decreasing trend of production from Rajhara Mines, a new iron ore deposit with more than 700 million tonnes of the good quality iron ore at Rowghat (MP) had been identified but the mining lease which was granted by the Ministry of Steel and Mines in 1991 had not so far been approved by the Ministry of Environment & Forests. In view of the critical position of ore availability, the Committee had strongly recommended that Government should ensure clearance of the Rowghat mines within 3 months.

14. In their reply, the Government have stated that Stage-I clearance for Rowghat Project has been accorded on 27 February, 1996 at a cost of Rs. 12 crores for preparation of DPR as well as to take up other related preliminary activities for development of mechanised iron ore mines at Rowghat which is to be completed within 18 months from the date of its sanction. However, forest clearance from the State and Central Governments is still awaited for this project.

15. The Committee express their anguish over the fact that although stage I clearance for preparation of DPR has been given, forest clearance for the Rowghat iron ore project has still not been given. The Committee were informed during evidence that if this iron ore is not available, the Bhilai Steel Plant might become economically unviable. Considering the importance of Rowghat project for the very survival of BSP, the Committee recommend that a decision in the matter should now be taken without any further delay and the Committee be apprised of the same.

## E. OUT-FLOW OF EXECUTIVES FROM SAIL RECOMMENDATION (SL. No. 25, PARA 25)

16. While noting that the percentage of executives who left SAIL increased from 0.86% in 1992-93 to 0.98% in 1993-94 and 1.22% in 1994-95*, the Committee had observed that the steps taken by the SAIL to prevent the out-flow of personnel from SAIL were not adequate. They had recommended that the Government should look into this aspect seriously and ensure that exit of personnel from a specialised public undertaking like SAIL is arrested.

17. The Government have stated in their reply that the percentage increase in the resignations (of executives) from SAIL during the last three years was marginal. Nevertheless, steps were being taken to motivate the employees and prevent outflow of executives from SAIL. Some of the

* The number of executives who left the organisation during 1995-96 was 239 (1.20% of the executive strength of 19830). In 1996-97 (upto September, 1996). 126 executives left SAIL.

steps taken in this regard included revision of wage and salary structure, perks etc.; induction of state-of-the art technology with modernisation of steel plants; exercises for bringing about better organisational culture and stress on training and development of employees etc. According to the Government, the turnover of executives in SAIL particularly on account of resignation were quite negligible and there was no cause for concern. With the current image of SAIL, the company was able to attract the best talent available in the country and it did not anticipate any adverse impact on performance because of a few resignations from the executive cadre.

18. The Committee are dismayed to observe that instead of identifying the cause for increase in percentage of executives leaving SAIL, the Government have sought to justify the state of affairs by claiming that the exit of executives is quite negligible and there was no cause for concern. The Committee wonder how inspite of the steady increase in the percentage of exodus of executives, the Company does not anticipate any adverse effect on its performance. The Committee, therefore, reiterate that the matter deserves serious attention with a view to arresting exodus of personnel from a specialised public undertaking like SAIL.

## CHAPTER II

## RECOMMENDATIONS THAT HAVE BEEN ACCEPTED BY GOVERNMENT

### Recommendations No. 1

Bhilai Steel Plant, one of the major units of SAIL, was set up in September, 1961 with Soviet assistance with a capacity of one million tonne capacity. The capacity of the plant was increased to 2.5 MT of ingot steel in October, 1967. The extension of Steel making capacity from 2.5 MT to 4 MT in BSP, was finally approved by Govt. in February, 1978 at an estimated cost of Rs. 937.70 crore. The Committee are astonished to find that the cost was revised upward thrice first in March, 1983 to Rs. 1600.50 crores, then in January, 1987 to Rs. 2145.50 crores, and finally in January, 1989 when it was assessed at Rs.2288.63 Crores, representing an increase of 144% over the original Govt. approved cost. The Committee are not convinced with the argument that mid-course changes were inevitable as several Indian Companies implementing the project were at an early stage of absorbing the new technology. In their opinion, frequent revisions of cost estimation postulate indecisiveness and lack of farsightness on the part of Management. This is confirmed by BSP's own admission that the original estimates were made without any detailed engineering resulting in the cost estimates going wrong. The Committee, therefore, recommend that such flippant attitude on the part of Management should not be repeated in future and the company should ensure that cost estimation is done after detailed engineering by qualified professionals.

### Reply of Government of India (Ministry of Steel)

Despite well defined systems and procedures followed in the evaluation of projects and framing of cost estimates, time/cost overruns have taken place in respect of 4 MT Expansion of BSP.

BSP has listed out specific circumstances/reasons due to which revision in the cost estimates of 4 MT expansion became inevitable. These are as follows:—

(i) Change in the volume or work;

(ii) Delay in receipt of civil drawings from USSR;

(iii) Delay in supply of plant and equipment by indigenous manufacturers/suppliers in the public and private sectors as well as supply from erstwhile USSR;

(iv) Slow progress of execution of work at site due to deployment of insufficient resources of manpower and input materials by the executing agencies;

(v) Extensive site rectifications of defective equipment supplied by various manufacturers;

(vi) Mid-stream changes in the specifications as well as in the scope of project;

(vii) Site conditions like excavation in hard rock;

However, the recommendations made by the Hon'ble Committee to ensure that cost estimation is done after detailed engineering by qualified professionals, is noted for guidance.

**Steps taken by SAIL to ensure accuracy in cost estimation of a project:**

A standard guideline for capital cost formulation has been implemented by SAIL. This system is uniformly applicable to all categories of projects/ schemes, irrespective of the value/size of investment viz., green field project, modernization and technology upgradation, debottlenecking schemes, expansion projects, additions, modifications, replacements, rebuildings, R&D projects etc. irrespective of sanctioning authority. Some of the relevant objectives of this system are:—

(a) To introduce consistent and uniform practice for capital cost formulation and presentation in SAIL.

(b) To provide predetermined and redefined project estimate heads;

(c) To provide comprehensive check-list of elements of costs in project estimate;

(d) To ensure consistent and uniform provisions of imposed and normative costs;

(e) To enable easy comparison of costs for identical works from project to project;

The system enables close scrutiny of cost elements to arrive at realistic cost estimates. Moreover, the proposals are appraised by Government/ Planning Commission.

For some projects, for which the cost estimates are known due to reasons of being similar project or a repetitive one, the cost estimates are based on engineering estimates of consultants.

For other projects, which are taken up for the first time and the parameters of which are not very familiar, generally two stage approval is adopted. Initially, the project is based on rough engineering estimates or budgetary offer. In such cases, "In principle" approval of the Chairman,

SAIL or SAIL Board is accorded in the first stage. The plants are then allowed to go for technocommercially acceptable L-1 tenderers. Financial approval of the project is accorded thereafter by Chairman, SAIL/SAIL Board for the firmed up costs in the second stage.

The above practice provides more accurate estimate of the project and it has been observed that occurence of cost over-runs due to under estimation has reduced to a great extent.

**Project Organisation**

There has been a reorientation of Project Organisation structure over the period which is now based on the Integrated Project Management Concept and encompasses functions such as Planning & Monitoring, Construction, Material Management, Finance, Personnel and Administration.

Over the years, Project Departments of SAIL are being strengthened based on past experience. SAIL, always appoints experienced consultants like M/s Dastur, MECON and inhouse CET who, over the years have gained experience and quality of consultancy has improved.

**Structured Project Management System in BSP**

In BSP, a Structured Project Management system is being followed. Various measures like freezing of scope, avoiding mid stream changes, selecting competent contractors, deciding implementation strategy etc. have been followed in finalisation and implementation of major projects like Coke Oven Battery (COB)-10, Expansion of Oxygen Plant (OP)-2 and Sinter Plant-3. Bhilai Steel Plant has completed many modernisation and Addition, Modification Replacement (AMR) projects without any cost over run. Few examples of such projects costing more than Rs. 10 Crores are listed below:

| | | Sanctioned cost (Rs. Cr.) | Actual cost (Rs. Cr.) |
|---|---|---|---|
| 1. | 4th Sinter Machine-Sinter Plant-2 | 46.70 | 46.21 |
| 2. | Stock conveyorisation-Blast Furance-5 | 14.44 | 13.96 |
| 3. | Twin Hearth Furnace-3 Steel Melting Shop-1 | 31.46 | 23.58 |
| 4. | Upgradation of Blast Furnace-2 | 21.94 | 15.36 |
| 5. | Rapid water quenching Merchant Mill | 13.84 | 13.84 |
| 6. | Gas Cleaning Plant for Open Hearth Furnace-7, 8 & 9 | 13.65 | 13.56 |
| 7. | Revamping Wire Rod Mill C&D Stand | 71.90 | 71.90 |
| 8. | Slag Granulation Plant in Blast-Furnace-4 | 30.08 | 29.90 |
| 9. | MG set by Thyrister converter in Rail & Strl. Mill | 19.32 | 19.32 |
| 10. | Slag Granulation Plant in Blast Furnace-6 | 14.59 | 12.88 |
| 11. | Construction & Modernisation-Blast Furnace-6 | 74.58 | 42.92 |

One major project of Coke Oven Battery-10 costing Rs. 195.85 crores has been commissioned in November, 1996 without anticipating any cost over run.

**Recommendation No. 3**

The Committee are distressed to observe the long delay in completion of the project. The original completion date indicated by Govt. while according approval to the project was June, 1983. This was shifted to December, 1984 and again to January, 1988 but the main units were completed on by March, 1988. The company as well as the Ministry attributed the delay in supply of equipments and drawings and change in scope etc. But the Technical Committee set up in pursuance of the directions of the Cabinet Committee observed in April, 1984 that even the contractual arrangements made by the implementing authorities lacked clarity and precision for which no responsibility could be fixed on any contractor. Not only that, slow progress of work at site was allowed to continue year after year without effective augmentation on the work front. The commercial practice of inspecting equipment before despatch was also not adhered to by the Project Authorities in regard to equipment supplied by Heavy Engineering Corporation merely on the presumption that supply of equipment as per the detailed drawings was the responsibility of HEC. Ultimately, the equipment turned out to be defective. The Committee strongly deprecate this apathetic attitude of the management in not handling things in a professional manner. They, therefore, recommend that in future, whenever such schemes are to be undertaken, integrated project management should be ensured for smooth operation of the project.

**Reply of Government of India (Ministry of Steel)**

To reduce incidence of time over-run, following measures have been taken in Bhilai Steel Plant for improved performance through structured Project Management System:

- Freezing the scope of work and not allowing midstream changes.
- Selection of reliable and proven agencies.
- A sound contract Management system.
- Setting up a cohesive Project Management team for implementation.
- Ensuring timely supply of plant and machinery. All suppliers/sub. vendors of contractors are directly pursued to deliver the critical items. This was vigorously done in case of Wire Rod Mill and Coke Oven Battery No. 10 projects.
- For timely completion of various units, use of PERT Network and close monitoring is emphasised. Project review meetings with all

concerned departments/agencies are organised on weekly/monthly basis by General Manager/Executive Director.

Annual & monthly plan of works are drawn identifying critical milestones for each project/units and followed for regular monitoring of progress. Daily progress of work at site is monitored by zonal head. General Manager/Executive Director conduct regular site inspections.

— To speed up work, assistance to contractors by way of steel, cement and advance of funds is being given. In Battery No. 10 Project, HEC and their sub-vendors were given financial assistance for speedy supply of equipments.

— Liquidated damages and bonus clauses are introduced in contracts linked with milestones in delivery of equipments, completion of civil works and successful commissioning.

— Projects have been optimally divided into various packages so that expertise and latest technology can be used without affecting the overall schedule of project. In case of Oxygen Plant No. 2 expansion and new Sintering Plant No. 3, projects have been divided into optimum packages so that the main contractor has to deal with fewer sub-contractors.

— Stage inspection of supplies at manufacturer's works to eliminate defects at early stage.

— Clauses for Stage & final inspection are enforced. Bhilai Steel Plant was able to complete many schemes within sanctioned time schedule. A few such schemes costing more than Rs. 10 crores each is given below for example:

| | | Sanctioned Cost (Rs./Crores) | Approved Commissioning Date | Actual Date of Completion |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. | 4th Sint. Machine -SP-2 | 46.70 | 5/91 | 12/90 |
| 2. | Stock House conveyorisation BF-6 | 13.14 | 5/91 | 5/91 |
| 3. | Ball-less top BF-6 | 19.83 | 12/90 | 12/90 |
| 4. | Modification of Stoves- BF-6 | 18.93 | 12/90 | 12/90 |
| 5. | Cast House Slag Granulation Plant — Blast Furnace No. 4 | 14.59 | 12/90 | 12/90 |
| 6. | Reconstn. & Modern. BF-6 | 74.58 | 12/90 | 12/90 |
| 7. | Bell less top BF-5 | 26.31 | 7/92 | 7/92 |
| 8. | Stock conveyorisation -BF-5 | 14.44 | 7/92 | 7/92 |
| 9. | Twin Hearth Furnace No. 3 Steel Melting Shop No. 1 | 31.46 | 12/92 | 6/92 |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 10. | Upgradation of BF-2 | 21.94 | 8/93 | 8/93 |
| 11. | Gas Cleaning Plant for Open Hearth Furnace—7, 8 & 9 | 13.65<br>7/94<br>5/94 | | |
| 12. | Electrostatic Precipitator (ESP) | 12.73<br>4/95<br>2/95 | | |

**Vetting Remarks of Audit Against Recommendation Nos. 1 & 3**

The Ministry in its reply has given only those cases where there was no cost escalation/delay. In respect of the following cases there was cost escalation due to delay.

| | Scheme Details | Time over run | Cost over run Rs. |
|---|---|---|---|
| 1. | Rebuilding of Coke Oven Battery No. 4 | 28 weeks | 25.00 lakhs |
| 2. | L.D. Automation in SMS-II | 24 months | 208.34 lakhs |
| 3. | Procurement of X-ray difracto-meter | 5 years | 50.84 lakhs |
| 4. | Replacement of 60 T Tensile Testin machine | 4 years | 54.97 lakhs |

Ministry's reply that there is no cost or time over run is not correct in view of the above. However, sicne Ministry has assured that steps have been taken to reduce cost over run/delay, a detailed study will be undertaken while preparing the next review or reviewing of schemes exceeding Rs. 10 crores. We have to further comments.

**Further Comments of Government of India (Ministry of Steel)**

Audit in its vetting remarks has indicated that the Ministry's reply that there is no cost and time over run is not correct.

As already pointed out earlier, it has not been the Ministry's stand that there is no case of time and cost ove-runs. Rather the Ministry has tried to clarify that a number of steps have been taken to prevent time and cost over runs. As a result of implementation of these measures, it has been possible for BSP to complete a few (*i.e.* not all) shemes within the sanctioned time schedule. An illustrative list of such schemes which were compeleted within sanctioned sxhedule were given in the earlier reply.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II /Vol. III dated 18.2.97]

**Recommendation No. 4**

The contract with Hindustan Steel Works Construction Ltd. stipulated periodical rates as well as quantum of concreting work to be done in each period. Due to non-completion of work as per schedule by HSCL, the backlog in concrete work and equipment erection work was got cleared at an extra expenditure of Rs. 7.17 crores by paying higher rates. It is strange to observe that BSP management were unable to fix responsibility on HSCL for not completing the work as per the contract even though it might be a complex interdependent project. They recommended that in future while entering contracts—SAIL should be more vigilant in guarding its commercial interests.

**Reply of Government of India (Ministry of Steel)**

A detailed note on steps taken by SAIL for safe-guarding its commercial interests is at ANNEXURE.

**Vetting Remarks of Audit**

No comments. Guidelines for commercial terms to safeguard the company's interest will be watched during local Audit.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 8**

The committee have also been given to understand that BSP has been facing some problems regarding availability of wagons. It appears the prevailing system of coordination in this regard with the Railways is not adequate. The committee, therefore, recommend that a permanent machinery should be set up involving the representatives of Ministries of Steel and Railways and SAIL to coordinate and ensure adequate availability of wagons to Steel Plants.

**Reply of Government of India (Ministry of Steel)**

Wagon shortages at the plant level may occur due to a variety of factors such as bunching/detention of wagons due to congestion at different points in the movement system, occasional preferential movements by Railways in one sector, phased transition of Railways switching over from ordinary BOX type wagons to BOX-N type of wagons etc. To overcome such difficulties, a number of steps have been taken.

A permanent machinery under the Chairmanship of Development Commissioner for Iron & Steel, who represents Ministry of Steel, is already functioning for coordination and monitoring of wagons availability. This Committee consists of representatives from Railways and the producers. Development Commissioner for Iron & Steel holds formal meetings in the beginning of every quarter. The performance of the

previous quarter is reviewed and action plan for monitoring wagons availability for the next quarter is drawn. This has helped in better condition with Railways and in turn improvement in availability of wagons to all SAIL plants.

A Permanent Machinery is also functioning under the aegis of Secretary-(Coordination) in the Cabinet Secretariat on infrastructure coordination and in this forum, Ministry of Steel, Ministry of Railways and SAIL are represented. The urgent problems vis-a-vis support needed are reviewed for appropriate actions on regular basis.

2. In addition, regular interface with Railways for sorting out day to day problems of wagons availability and movement thereof is also done between:

(i) Railway Board and SAIL at Corporate level;

(ii) SAIL's Rail Movement Cell at Calcutta and S.E. Rly. and E. Rly. Headquarter at Calcutta;

(iii) Individual plants with Divisional Railway Managers where the plants are located.

**Vetting Remarks of Audit against Recommendation Nos. 7 & 8**

No comments. The recommendations deal with suply of quality coal to Bhilai Steel Plant from domestic sources and coordination for better availability of wagons respectively. The action taken report may be awaited from Head Officer.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12 (22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 10**

The committee regret to observe that the actual production of hot metal (including off-grade hot metal) had always been less than the rated capacity except in 1993-94. Production of off-grade hot metal also ranged from 4.68% to 34.85% during 1987-88 to 1993-94. In the committee's opinion many of the factors attributed for short-fall in production such as higher percentage of undersize iron ore and sintex etc. could easily have been overcome since the plant has its own captive sources for iron ore and sinter. The committee wonder why the screening facilities which were provided during modernisation/capital repairs to reduce the undersize fraction could not be provided earlier. They deprecate such lackadaisical approach of the company towards constraints which can be overcome by a little foresight and expect that such lapzes should not be allowed to recur in future.

**Reply of Government of India (Ministry of Steel)**

The Blast Furnaces at Bhilai Steel Plant are of Russian design. There were no screening facilities provided for the raw meterials except that for coke at the time of installation of Blast Furnaces 1 to 6. During transit of iron ore from mines to Blast Furnaces and Sinter from Sintering Plants, fines are generated due to repeated handling and through various drops. The excess quantity of undersize in iron ore and sinter affects furnace operation. In order to improve the raw material quality and to charge the furnaces with proper size of iron ore and sinter, screening facilities were provided between 1987-88 and 1993-94 in the furnances during modernisation/capital repairs.

The screening facilities together with disposal of undersize fractions of raw materials could be installed only during capital repair period of the furnances as these activities require a very long shutdown of the furnaces and can be done only during the capital repairs.

Out of the 7 Blast Furnaces, screening facilities have already been incorporated in 6 Blast Furnaces and in BF-3, these facilities will be incorporated in the ensuing capital repair which is planned during May, 1997 to August, 1997.

**Vetting remarks of Audit**

No comments.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12 (22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 11**

The productivity of Blast Furnace has generally been less than the DPR norms. The committee are astonished to find that inspite of drop in the ash content, slag rate and coke rate, the productivity did not improve correspondingly. Admittedly there is still scope for further improvement. They have no doubt that this situation could have been avoided had the Management taken proper remedial steps at the right time. They would now recommend that steps should be taken expeditiously to overcome the operational constraints and to ensure higher utilisation of the BF and its uninterrupted working.

**Reply of Government of India (Ministry of Steel)**

Efforts are continuously made by SAIL(BSP) to improve productivity through improved utilisation and uninterrupted working of the furnaces. The overall productivity of 1.29 T/CuM/Day attained during 1995-96

(excluding December' 95) is the highest so far since inception. Some of the measures taken to improve productivity are:

(i) improvement in the burden preparation-Stock house conveyorisation

(ii) provision of twin taphole for better drainage of hearth

(iii) provision of castables in the cast house for more through put of hot metal

(iv) provision of Bell less top for optimum distribution of material in the furnace and longer life of top equipments.

Furnace-wise productivity for the past five years is given below:

(Unit : T/CuM/Day)

| | Blast Furnace Number | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Overall |
| DPR Norms | 1.162 | 1.162 | 1.162 | 1.083 | 1.083 | 1.083 | 1.235 | 1.137 |
| 1991-92 | 1.11 | 1.07 | 1.17 | 1.02 | 0.88 | 1.28 | 1.28 | 1.11 |
| 1992-93 | 0.99 | 1.02 | 1.05 | 1.10 | 1.24 | 1.30 | 1.33 | 1.18 |
| 1993-94 | 0.93 | 1.08 | 1.04 | 1.03 | 1.31 | 1.31 | 1.43 | 1.20 |
| 1994-95 | 1.15 | 1.15 | 1.02 | 1.12 | 1.34 | 1.12 | 1.34 | 1.20 |
| 1995-96* | 1.21 | 1.19 | 1.10 | 1.19 | 1.34 | 1.37 | 1.46 | 1.29 |

*Excluding December' 95.

**Vetting remarks of Audit**

The data/figures given against 1995-96 may be corrected as under:—

Productivity (T/M3/Day)

| | Blast Furnace Number | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Overall |
| DPR Norms | 1.162 | 1.162 | 1.162 | 1.083 | 1.083 | 1.083 | 1.235 | 1.137 |
| 1995-96 | 1.20 | 1.14 | 1.08 | 1.15 | 1.30 | 1.35 | 1.40 | 1.25 |

Though there was improvement in the productivity of Furnace No. 1, 4, 5, 6, & 7 the productivity remained less than the DPR Norm in respect of Furnaces No. 2 & 3.

**Further comments of Government of India (Ministry of Steel)**

The figures presented by Audit for the productivity of Blast Furnaces are inclusive of the performance of December' 95.

However, the production during December' 95 may not be taken into consideration because of the serious breakdown in the power grid affecting the power supply to BSP thereby disrupting the normal working at Blast Furnaces during the month. Hence, the productivity of different Furnaces during 1995-96 may be considered excluding the performance of December' 95. This was reported in the original reply of Govt. of India (Ministry of Steel) and is reproduced below:

(Unit: T/CuM/Day)

| Blast Furnaces Number | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | Overall |
| *1.21 | 1.19 | 1.10 | 1.19 | 1.34 | 1.37 | 1.46 | 1.29 |

(*Excluding December 95)

The productivity of BF-3 was less than the DPR norm. This furnace was operated in a controlled regime due to poor hearth condition. This furnace is due for Capital Repair in 1997 during which several measures will be taken to improve the productivity.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 12**

On the recommendations of MECON, the consultants, a Movable Throat Armour (MTA) valuing Rs. 1.93 crores was commissioned in Blast Furnace 6 in August, 1986 for better raw material distribution in order to improve hot metal production in order to reduce coke consumption. As the benefits expected of MTA could not be achieved, the Bell Less Top (BLT) charging system was introduced in BF 6. The committee wonder why the company went in for MTA system when the widely accepted technological superiority of BLT charging system in BF technology as well as the feasibility of its adoption in furnaces of BSP was well known much before placement of order for supply of MTA. That the MTA system on removal from BF 6 could not be installed in BF 4 also goes to show that the decision to install the MTA system was not correct. What further dismays the committee is the fact though the decisions to install the BLT system was taken as far back as in the year 1989, efforts to dispose of MTA system have yet to be initiated. A final decision in this regard, it was stated, would be taken when efforts to use it in other steel plants fail to materialize. The committee deplore such inordinate delays in decision making and desire that in case MTA system cannot be used in any of the plants, it should be disposed of expeditiously alongwith the additional

equipment purchased in 1989. The committee would also like to be apprised in the matter.

**Reply of Government of India (Ministry of Steel)**

Following possibilities were tried by Bhilai Steel Plant for disposing of the MTA:

1. Exploring possibility of usage in sister plants.
2. Disposal by inviting global tender.

It has been observed that there is no possibility of usage of Moveable Throat Armour (MTA) in sister plants due to design differences of Blast Furnaces with that of BSP's Blast Furnace-6 and at the same time there was no response to global tenders issued first in November, 1994, and then in February, 1996.

To explore the possibility of gainful utilisation of parts of Moveable Throat Armour (MTA), a committee headed by Dy. General Manager (TS & Garages) was constituted by General Manager (M&U). The committee divided the parts of MTA into four groups as mentioned below:

1. Available parts which have an alternative usage;
2. Parts already consumed at Blast Furnace;
3. Parts which were installed inside the furnace and consumed during the opeation of Moveable Throat Armour (MTA);
4. Parts available in Stores as spares.

Movable Throat Armour (MTA) is an assembly in which certain parts are installed inside the furnaces while parts like hydraulic systems and power packs are installed out side the furnaces. The parts which are in side the furnaces are normally those parts which require replacement such as wearing plates. The assemblies which are in side the furnaces cannot be taken out without sacrificing some of the parts when the Throat Armour is to be removed.

As such, the parts which have been consumed during operation of the present MTA value at Rs. 93.70 lakhs and the parts available outside the furnaces amounting to Rs. 39.20 lakhs can be gainfully utilised. Spare parts available in Stores but cannot be utilised (normally castings etc.) will be disposed off through Disposal Stores.

**Vetting Remarks of Audit**

No comments.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 14**

During the period 1978-79 to 1993-94, the extra expenditure due to excess metallic input (hot metal, iron scrap and steel scrap) as compared to norms fixed by the management was Rs. 296.58 crores. Similarly, the extra expenditure on excess consumption of Ferro Manganese during this period was Rs. 38.79 crores. Although the metallic input is stated to have been brought down to some extent recently, the committee need hardly emphasise the need for taking stringent measures to bring the metallic input as well as the consumption of Ferro Manganese within norms to save the extra expenditure on this account.

**Reply of Government of India (Ministry of Steel)**

It is true that excess consumption of metallic input/Ferro Manganese results in extra expenditure.

In order to reduce the metallic consumption the following measures are taken:

(i) minimising over oxidation of metal by adhering to technological discipline.
(ii) ensuring slag free hot metal supply.
(iii) controlling spillage during pouring.
(iv) ensuring right charge ratio for getting proper melt down carbon.
(v) adherence to schedule of tapping.
(vi) classification of scrap for Open Hearth & Twin Hearth furnaces.

As a result of the measures taken by Bhilai Steel Plant, the metallic input is showing decreasing trend as below:

| YEAR | ACTUAL Kg/T |
|---|---|
| 1990-91 | 1215.8 |
| 1991-92 | 1186.8 |
| 1992-93 | 1182.5 |
| 1993-94 | 1159.2 |
| 1994-95 | 1159.2 |
| 1995-96 | 1138.0 |

To reduce the Ferro Manganese consumption following steps are taken:

(i) only weighed quantity of Ferro Manganese is added in ladle during tapping of each heat.
(ii) over oxidation of steel during refining is controlled.
(iii) tapping temperature contained within 1615+5 deg. C.
(iv) avoid Ferro Manganese boil in bath.
(v) finishing Manganese at the lower side of the given chemistry of steel specification.

(vi) Ferro Manganese consumption also depends upon the quality of steel being produced depending upon the market demand.

The Ferro Manganese consumption over the recent years has been reduced as shown below:

| YEAR | ACTUAL Kg/T |
|---|---|
| 1990-91 | 16.2 |
| 1991-92 | 16.1 |
| 1992-93 | 15.0 |
| 1993-94 | 14.0 |
| 1994-95 | 13.5 |
| 1995-96 | 13.8 |

**Vetting Remarks of Audit**

The consumption of metallic input and Ferro Manganese for the period from 1990-91 to 1995-96 which has already been covered in the Audit Report has been given in the Action Taken Report. The decreasing tendency was there in the Audit Report also. But the fact remains that the consumption per tonne of metallic input is far above the norms (1045 kgs per tonne). Whereas consumption of Ferro Manganese has decreased but the consumption of Ferro Silicon which is much more costlier than Ferro Manganese has gradually increased from 1990-91 to 1995-96 as shown below:

| Year | Consumption of Total (T) | Ferro Silicon Kg/T of Steel Ingot |
|---|---|---|
| 1988-89 | 2128 | 0.8 |
| 1989-90 | 2755 | 1.5 |
| 1990-91 | 3912 | 1.8 |
| 1991-92 | 4255 | 2.2 |
| 1992-93 | 5128 | 2.3 |
| 1993-94 | 5393 | 2.4 |
| 1994-95 | 5314 | 2.3 |
| 1995-96 | 5296 | 2.3 |

**Further comments of Government of India (Ministry of Steel)**

**METALLIC INPUT:**

The norm of Metallic Input of 1045 Kg/T mentioned in the vetting remarks of CAG were fixed by Norms Committee in the year 1979 when 5 Open Hearths of 250 T capacity and five Open Hearths of 500 T capacity were in operation. Subsequently,

seven Open Hearth Furnaces have been replaced in a phased manner by three Twin hearth Furnaces during 1986 to 1992.

Twin Hearth Process involved production of Steel with intensive oxygen lancing with no external gaseous fuel resulting in increased degree of bath oxidation. This is inherent to the process of Twin Hearth Technology thereby resulting in increased consumption of Metallic Input as well as more quantity of deoxidisers like Ferro Silicon etc.

**Ferro Silicon Consumption**

The specific consumption figures mentioned in the vetting remarks may please be corrected as under:

*Consumption of Ferro-Silicon*

| Year | Total (T) | Sp. Consm. Kg/T of Steel |
|---|---|---|
| 1988-89 | 2128 | 1.110 |
| 1989-90 | 2755 | 1.437 |
| 1990-91 | 3912 | 1.886 |
| 1991-92 | 4255 | 1.974 |
| 1992-93 | 5128 | 2.207 |
| 1993-94 | 5393 | 2.252 |
| 1994-95 | 5314 | 2.200 |
| 1995-96 | 5296 | 2.252 |

The production from Twin Hearth Furnaces has increased over the years and the same has resulted in increased consumption of Ferro Silicon. Following table shows the percentage of production at OHFs & THFs during the last five years:

| Year | Total Prodn. | O H F Prodn. (%) | T H F Prodn. (%) |
|---|---|---|---|
| 1991-92 | 21,55,650 | 38.96 | 61.04 |
| 1992-93 | 23,23,650 | 24.30 | 75.70 |
| 1993-94 | 23,95,050 | 21.14 | 78.86 |
| 1994-95 | 24,15,250 | 23.75 | 76.25 |
| 1995-96 | 23,52,050 | 21.97 | 78.03 |

However, efforts are also being made to contain Ferro Silicon consumption by monitoring and limiting the bath Oxygen potential level in T.H.F. to optimal desired level.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 16**

The liquid steel produced in converter shop (SMS-II) is converted into slabs and blooms in the continuous casting shop. The committee regret to note that the actual production of slabs has been less than the annual targets during all the years except in 1985-86 and 1991-92. Out of tap to tap time of 70 minutes, the blowing time was only 18 minutes and the remaining 52 minutes were required for logistic between SMS-II and continuous casting. This appears to be too high to the committee and needs to be reduced. The commmittee are also unhappy with the contention of the management that there were certain inherent deficiencies in the process of continuous casting, while the experts were of the view that there were no inherent deficiencies in the process. They, therefore, desire that BSP should take remedial measures without further loss of time to achieve the right matching in the continuous casting shop and increase the production.

**Reply of Government of India (Ministry of Steel)**

As clarified by Secretary (Steel) during his oral evidence on 1.11.1995, there are no inherent deficiencies in the process of continuous casting. There was only problem of logistics between converter shop and continuous casting shop. However, the plant was able to over-come the problems with improved operating practices. The trend of increase in production of slabs and blooms is depicted in table given below:—

(Unit: Million Tonne)

| Year | Rated Capacity | Actual Production |
|---|---|---|
| 1991-92 | 1.425 | 1.517417 |
| 1992-93 | 1.425 | 1.542205 |
| 1993-94 | 1.425 | 1.557776 |
| 1994-95 | 1.425 | 1.636071 |

The production of SMS-II has been above the rated capacity during recent years. The entire production of liquid steel from converters is processed through the concast route as per the requirement. The tap to tap time of 70 minutes was for synchronization of converter tapping with casting duration of casters. The DPR envisages tap to tap time for converters at 60 minutes. Tap to tap time has been brought down to 63 minutes as a result of various in-house modifications and increasing the casting speed. The following in-house modifications were done:

**Converter Shop**

1. long mast CRD shifted from end feed to centre feed.
2. mixer Crane and Ladle Bay Crane auxiliary trolley line system replaced by trailing cable system.
3. slag pot main trolley line replaced by trailing cable system.
4. vertical dipping of sampler and thermo couple tips at mixer and Argon Rinsing Unit.
5. height of the ladle increased by 200 mm to accommodate more hot metal.
6. dryer modified to accommodate extended height of ladle and better heating of ladles.
7. all steel ladles provided with castable backup lining to avoid ladle through.
8. modification done in mixer top to reduce shell jamming.
9. use of ladle cover during rinsing to reduce temperature loss and Nitrogen pick up.
10. lime screening at Junction-35.
11. screening of ferro-alloys at FAD.
12. use of sinter-dolo at converter for slag coating by Nitrogen blowing.
13. earth fault isolation provided for scrap crane and ladle bay crane trolley lines.

**Continuous Casting Shop**

1. *Slab Caster*
   a. secondary cooling extension and working only on soft water.
   b. mould water cooling pipe line changing.
   c. secondary cooling nozzle scheme changing to increase speed.
   d. machine-4 pulpit desk rearranged.
2. *Bloom Caster*
   a. mould water pipe lines changed to increase flow.
   b. zone-1 secondary cooling modified to increase flow.
3. introduced system of wedge tightening.
4. tundish volume increased to 18 T.
5. use of monoblock stopper in slab tundish.
6. CP-3 GCM extended in M/c-4 to match with high speed casting.
7. use of Nitrogen in place of compressed air to have constant pressure in all machines.
8. shifting of pneumatic valves operation for secondary cooling by Nitrogen for having constant pressure.

**Slab & Bloom Storage Yard**

1. gripper-2 main trailing cable relocated and control panels shifted from EP-3 to near the gripper crane.
2. dry sludge removal system introduced in place of sludge granulation system to reduce Gas Cutting Machine down time and tunnel cleaning. This has also resulted in saving of water.

3. track no. 424 shifted to facilitate NPC loading and reduce crane/wagon damage.
4. semiportal area extended in 'F-G' bay.
5. trailing cable and I-beam in semiportal crane-4 relocated to avoid damage.
6. bloom line single beam crane trolley line replaced by trailing cable.

Efforts are continuing to further increase the casting speed and bring down the tap to tap time.

**Vetting Remarks of Audit**

The average tap to tap time was as follows:

| Year | Minutes |
|---|---|
| 1989-90 | 70.4 |
| 1990-91 | 64.1 |
| 1991-92 | 68.1 |
| 1992-93 | 65.8 |
| 1993-94 | 69.0 |
| 1994-95 | 66.3 |
| 1995-96 | 65.6 |

The Ministry's reply that the tap to tap time has been brought down to 63 Mts. is not correct.

**Further comments of Government of India (Ministry of Steel)**

Tap to tap time indicated at 63 minutes was for February, 1996 to show an improvement whereas Audit has quoted average tap to tap time for the whole year. The efforts are, however, on to bring it down on a regular basis which is reflected in the tap to tap time figures of 61.2 minutes, 63.1 minutes and 63.4 minutes for the months of October 96, November 96 and December 96 respectively.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 17**

The Committee are perturbed to observe that the Plate Mill commissioned between March, 1983 and December, 1985 at a cost of Rs. 752.05 crores never produced to its rated capacity of 9.50 lakh tonnes. Although the capacity of the mill was stated to be based on the best available advice from eminent agencies regarding future demand no proper market survey appears to have been done. Even the capacity of Rourkela Steel Plant and TISCO to produce Plates was not taken into account. The committee cannot but deplore the fact that the product mix was not in the line with the demand pattern. Not only that, the production of plates was not in line with DPR provisions and production plan based on the assessment made by Central Marketing Organisation (CMO), a unit of the company. All this resulted into export of plates at a price lower than the cost of production. Although, the exports are stated to have covered the

variable cost and made a positive contribution, the committee are of the opinion that the capacity was not created realistically after a proper market survey. The committee suggest that BSP should make all out efforts now to improve the sales for optimum utilisation of the existing capacity.

**Reply of Government of India (Ministry of Steel)**

There is improvement in the demand for plate in the country. To meet the market demand, SAIL (BSP) is increasing the production of Plate Mill by rolling partially in the third shift as well.

In order to boost the demand for BSP plates, production in several specific grades has been taken up. These plates have been made for specific end use of the customers for which plates were hitherto being imported. Besides SAIL (BSP) proposes to keep up its effort to export plates to countries like USA, Japan, South Korea etc., as a strategy, to remain a Global Player.

Following figures indicate the consistent growth in the production of Plate Mill.

| | | |
|---|---|---|
| 1993-94 | — | 621260 tonnes |
| 1994-95 | — | 669012 tonnes |
| 1995-96 | — | 818024 tonnes |

In line with the above, based on the market demand, the production of plates during 1996-97 has been planned by Bhilai Steel Plant at 830,000 tonnes, an all time high in the history of Plate Mill. This will be further raised depending upon the market demand. It may be mentioned here that two/three producers have also joined the plate production area in the country.

**Vetting Remarks of Audit**

The rated capacity has not been achieved upto 1995-96 nor planned for 1996-97. Even the plan of 8,30,000 tonnes of plates is far below the rated capacity of 9,50,000 tonnes.

**Further comments of Government of India (Ministry of Steel)**

In our earlier reply it was clarified that the production plan of Plate Mill is decided on the basis of market demand and therefore, production, *vis-a-vis*, rated capacity, of Plate Mill may be viewed by Audit in this background.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 19**

The production of limestone at Nandini captive mines ranged from 64.21% to 103.34% of annual targets during the period 1978-79 to 1993-94. The committee are not convinced with the contention that the shortfall in production was due to constraints in operation of Rail Transport System

since the production remained low even after replacement of rail transport by dumper transport from April 1987 onwards. They would, therefore, recommend that the technological deficiencies in the working of mines must be identified and remedial action taken.

**Reply of Government of India (Ministry of Steel)**

Actual consumption of limestone by the plant has always been lower than the projected requirement because of use of dolomite and increased percentage of sinter in burden except in the year 1992-93 as given in the table below:—

('000 Tonnes')

| Year | Reqt. | Cons. | Prod. | % Ful. against Req. | %Ful. against Cons. |
|---|---|---|---|---|---|
| 87-88 | 1385 | 1094 | 1138 | 82.2 | 104.0 |
| 88-89 | 1430 | 1045 | 988 | 69.1 | 94.5 |
| 89-90 | 1114 | 943 | 864 | 77.6 | 91.6 |
| 90-91 | 1004 | 881 | 856 | 85.3 | 97.2 |
| 91-92 | 1056 | 864 | 1117 | 105.8 | 129.3 |
| 92-93 | 905 | 975 | 1018 | 112.5 | 104.4 |
| 93-94 | 983 | 981 | 928 | 94.4 | 94.6 |

It would be observed that the production against the actual consumption has always been matching. There has not been any purchase of low grade limestone since 1988-89 upto the review period.

**Vetting Remarks of Audit**

Ministry's reply to the recommendation No. 19 is not correct, since BF/SP grade (High Silica) limestone worth Rs. 6.26 cores and low silica limestone worth Rs. 179.16 crores were procured during the period under review (also see recommendation No. 20).

**Further comments of Government of India (Ministry of Steel)**

Low grade limestone, which was typographical error in our earlier reply, may be read as BF grade (High silica) limestone. As also stated in our earlier reply, there has not been any purchase of BF grade limestone since 1988-89 upto the review period.

The figure of Rs. 6.26 crores referred to by audit in their vetting remarks for purchases during the period under review refers to the period not from 1988-89 onwards, but from 1981-82 onwards. Between 1981-82 and 1985-86, a quantity of approx. 4.45 lakhs tonnes was procured for Rs. 5.96 crores. Audit has shown purchases of around 8000 tonnes in the year 1991-92, whereas BSP's records do not show this BF grade (High silica) limestone purchases, which if added in the overall purchases from 1981-82 onwards, the value of purchases will go up to the figure of Rs. 6.26 crores mentioned by audit in their vetting remarks. In view of

above factual position, it is reiterated that as per records available in BSP no purchase was made of BF grade Limestone since 1988-89 upto the period of review.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 20**

The committee express their displeasure over the procurement of 28.15 lakh tonnes of low silica limestone during 1982-83 to 1993-94 at an extra expenditure of Rs. 179.16 crores, though low silica limestone was to be procured from Sahapura under a mining lease obtained by BSP. It is strange that the Sahapura mine was only prospected for SMS grade limestone and not for low silica limestone required for consumption in Steel Melting Shop-II. The committee at this stage can only recommend that in future, keeping in view the requirements of the plant, thorough prospecting should be done before obtaining any mining lease.

**Reply of Government of India (Ministry of Steel)**

Bhilai Steel Plant uses three types of Limestone for its three different and distinct manufacturing process.

| Sl.No. | Type of Limestone | SIO2 (%) |
|---|---|---|
| 1. | BF/SP Grade | 6 to 6.5 |
| 2. | OH/RMP Grade | Upto 3.5 |
| 3. | BOF Grade | Less than 1.5% |

Shahapura Mine was taken on lease for OH and RMP grade limestone which in required in Steel Melting Shop-1, and not for low silica substitute, which is required in Converter Shop (SMS-II). Nandini Mine is having blackstone quarry belonging to Steel Melting Shop-I grade limestone. This was gradually depleted. Hence the Shahapura Mine was taken over on lease.

However, the recommendation of the Committee that in future keeping in view the requirements of the plant thorough prospecting should be done before obtaining any mining lease will be kept in view while finalising the lease deeds in future.

**Vetting Remarks of Audit**

No comments as the Ministry has accepted the recommendations of COPU.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 22**

In addition to raw materials and refractories different units of the steel plant require various types of services and fuel for the production of iron and steel. The committee are perturbed to note that the actual consumption of some of these services and fuel in BSP has been more than the norms fixed, resulting in an extra expenditure of as much as Rs. 164.39 crores in different units during the period 1978-79 to 1993-94. The explanation for the specific consumption of services and fuel being higher due to construction and commissioning of additional units under expansion programme can no longer be valid since all the units were commissioned by 1988. The committee, therefore, need hardly emphasise that concerted efforts should be made to bring the consumption of services and fuel within norms.

**Reply of Government of India (Ministry of Steel)**

The new units, under expansion at Bhilai Steel Plant, are inherently energy efficient viz. Battery-9, BF-7, PBCC, Twin Hearth Furnaces etc. A number of fuel and services saving measures have been taken in older units also. Some of these are:

(i) Introduction of Bell-less top in BF—4 & 6, and ESTS Hogoven Stove in BF-6 for increasing hot blat temperature.

(ii) Modification of skids in Rail & Structural Mill and Merchant Mill to reduce heat loss by 10%.

(iii) Introduction of Microprocessor based combustion control system in soaking pits and Reheating Furnaces of all Mills.

(iv) High emissivity refractory coating in soaking pits and reheating furnaces of all mills for fuel saving to the tune of 5-6%.

(v) Replacement of steam tracers with electrical tracing of liquid fuel lines which resulted in saving of 10 T/Hr of prime steam.

(vi) Wide application of improved sealing and on-line sealing systems to minimise leakage in process steam and high pressure steam network.

(vii) Charging of +15mm re-screened coke alongwith sinter has been introduced in Blast Furnaces resulting in saving in coke.

(viii) Mixed gas firing in Battery No. 9 has been implemented thus releasing C.O. Gas for combustion in PP-2 thereby reducing the consumption of boiler coal.

(ix) Completion of on-line Energy Management System (Phase-I) for optimum utilisation of gaseous fuels. (Phase-II of this scheme, funded partially by Deptt. of Electronics, is under implementation. This will cover real time monitoring and optimisation of all liquid fuels and services viz. oxygen, steam, compressed air, chilled water etc.).

The above, alongwith several other small and operational measures, has resulted in 26.5% reduction in overall Energy consumption rate since 1986-87. Secondly petrofuel consumption which was about 1.2 lakhs KL in the middle of reference period, has come down to a modest level of 25000—30000 KL. This is primarily credited to increased utilisation of bye-product fuel and reduction of specific fuel consumption of various production units.

One composite index which signifies how efficiently and in what measure the fuel/services are used in the plant is Energy Rate, G.Cal/TCS. The energy rate has shown a downward trend and is about the lowest among Indian Steel Industry.

| Year | Energy Rate (G Cal/TCS) |
|---|---|
| 1991-92 | 8.36 |
| 1992-93 | 8.25 |
| 1993-94 | 8.14 |
| 1994-95 | 7.98 |
| 1995-96 | 7.73 |

**Vetting Remarks of Audit**

The overall energy rate has come down, consumption of services shall be verified only after implementation of Phase-II as assured by Ministry of Steel.

**Further comments of Government of India (Ministry of Steel)**

The Phase-II of the scheme is in progress.

[Ministry of Steel O.M. No. 12(22)93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 23**

The committee are perturbed to note that non-moving stores and spares worth Rs. 39.64 crores and surplus items worth Rs. 2.46 crores were stockpiled in the company, as on 31st March, 1994. What was more distressing to note is the slow disposal of these inventory items. Although items worth Rs. 46.68 lakhs were disposed off during 1994-95, the system admittedly is cumbersome and has certain lacunae. They, therefore, urge that the system of disposal of surplus items should be simplified and the company should make all out effort to bring the inventory to the minimum level.

**Reply of Government of India (Ministry of Steel)**

Non moving stores and spares having a value of Rs. 10 crores were drawn by the user department from the stores during the year 1995-96. Similarly serviceable surplus stores and spares worth Rs. 42.10 lakhs have been disposed of during the year 1995-96. The activity of physical verification of serviceable surplus stores and spares had also been taken up

and completed during the year 1995-96. The inventory of serviceable surplus stores and spares as on 1.4.96 has been worked out as Rs. 67.8 lakhs.

The procedure for disposal of surplus items has since been reviewed and the same is as under:

A. It was decided that each unit would help the other in taking over surplus/obsolete items as long as such items are useful to the receiving unit.

B. As regards disposal of surplus/obsolete items to outside parties, the same may be disposed of by auction in the first instance and reserve price may be fixed on the basis of original book value, *i.e.* 100%. In cases where it is definitely known that the market value is lower than the book value, the reserve price may be lower and the same may be determined with reference to the last sale price or by other justifiable reserve price. Generally speaking the reserve price for the first time disposal should be the 100% of book value. For the second attempt, reserve price may be determined on the basis of bids received against the first tender. Normally, the reserve price should be higher than the highest bid received in the first instance as the item was not disposed of on the basis of such bid.

Reserve price for the second attempt may, thus, be assessed on the basis of expected market realisation. If first two attempts have not succeeded in disposing of the items, there need not be any reserve price for disposal of the highest bid, care should be taken to see that price realised is not lower than the prevailing market price of scrap of similar quality items. Further, the prices received on earlier occasions should be kept in view before taking the final decision to dispose of such items in the third/subsequent attempt.

2. The surplus equipments to be disposed have now been brought down to Rs. 1.103 crores.

**Vetting Remarks of Audit**

No comments.

**Further comments of Government of India ((Ministry of Steel)**

No further comments.

[Ministry of Steel, O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 24**

The actual yield of principal by-products *viz.* crude tar, crude benzol and ammonium sulphate has been generally lower than DPR norms almost in all the years during 1978-79 to 1993-94. Although the yield is stated to have improved after taking several steps like minimising leakage in batteries, improvement in functioning of effluent treatment plants and revamping and replacement of old equipment, the Committee have been given to understand that there is still scope for improving the production of by-products. They would therefore urge BSP to make every effort ot raise

the yield of by-products to the level of norms provided for the same. The Committee also desire that efforts should be made to further increase the production at Sulphuric Acid Plant.

**Reply of Government of India (Ministry of Steel)**

The yield/production of bye-products depends upon the volatile matter of coal which, in turn, depends upon the quality of the coal blend. However, efforts have been made to improve the same by adopting following measures:

(i) improving gas yield through minimising leakages in batteries (mainly through "on main charging")

(ii) improving functioning of Effluent Treatment Plants

(iii) revamping/replacement of old equipment.

Sulphuric acid is manufactured mainly for ammonium sulphate production. With the increase in volume of coal carbonised and gas yield, production of sulphuric acid has considerably increased. After the installation of new Double Conversion Double Absorption (DCDA) sulphuric Acid Plant; the production is steady and attempts are on to increase the production to the maximum level.

**Vetting Remarks of Audit**

No comments.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel, O.M. No. 12(22)/93/-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 26**

The committee observe that on the recommendations of Statutory Auditors, the internal audit wing of BSP is being strengthened but no action has been taken to change the reporting systems. They desire that the reporting systems should be brought in line with the advice of Statutory Auditors starting from the financial year 1996-97. The committee are also very much perturbed over the fact that the internal audit wing of the company did not carry out appraisal of the steel plant as recommended by the committee in their 15th Report (4th Lok Sabha). It was only in 1993-94 that action in this regard has been initiated. The committee wish to emphasise that they attach the greatest importance to the implementation of their recommendations. They therefore, desire that the appraisal now undertaken by the internal audit wing should be completed expeditiously under intimation to the committee.

**Reply of Government of India (Ministry of Steel)**

As desired by COPU, action relating to change in the reporting system of Internal Audit Section from Head of Finance to Chief Executive of the Plant/Unit has since been taken by SAIL Management.

Internal Audit Section has already completed the technical appraisal of all the major units of the plant during the years 1994-95 and 1995-96. The details of main units appraised are as follows:—

1. *Production Units:*

Coke Ovens, Blast Furnaces, SMS I & II, SP I & II

2. *Mills*

Blooming & Billet Mill, Rail & Sructural Mill, Merchant Mill, Wire Rod Mill and Plate Mill.

3. *Auxiliary Production Units:*

Oxygen Plant I&II, Refractory Material Plant I&II, Refractory Engg. Department, Ore Handling Plant, Engineering Shops, Material Recovery Deptt., Slag Granulation Plant, Electrical Repair Shop, Capital Repairs & Modifications, Plant Spares Stores, Central Plant Stores and Disposal Stores.

In future, the total plant will be covered under the cycle of three years.

**Vetting Remarks of Audit**

The Internal Audit reports were verified and it was found that the internal audit is taking up the critical appraisal of departments from time to time. Hence, no comments.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel, O.M. No. 12 (22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

## CHAPTER III

## RECOMMENDATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF GOVERNMENT'S REPLIES

**Recommendation No. 6**

The production of steel during the years 1978-79 to 1990-91 at Bhilai had been mostly lower than the rated capacity as well as annual targets. Breakdown in the equipments and various bottlenecks in the production processes were stated to be the internal factors responsible for such shortfall. These bottlenecks are now stated to have been removed which resulted in increased production. During the year 1994-95, the actual production of ingot steel/crude steel was 40.51 lakh tonnes *i.e.* 101.27% on the basis of capacity of 4 MT and that of saleable steel was 34.09 lakh tonnes *i.e.* 108.12% of the rated capacity. The committee fail to understand why the factors which have now been identified for lower production could not be identified all these years so that remedial steps could be initiated in time and shortfall in production avoided. They desire that the matter should be looked into with a view to find out as to when the factors responsible for lower production were identified and when the remedial measures were initiated and the committee be apprised of the same.

**Reply of Government of India (Ministry of Steel)**

The breakdowns & shutdowns of equipments and various bottlenecks in the production processes were the internal causes responsible for shortfall in production.

Review of production and analysing the causes of shortfall is a regular and continuous process. This being so it is not possible to state the exact date as to when the cause(s) were identified. For example, fluctuations in the raw material quality had become more serious from 1987-88 and this resulted in erratic working of the Blast Furnaces. Once the cause is diagnosed the process of eliminating the cause begins. The detailed planning is done taking into account various aspects.

To over-come such causes, management took remedial measures by way of implementing debottlenecking/modernisation schemes and improved maintenance/standard work practices. These have resulted in increasing the availability/utilisation of various equipments. In order to ensure availability of BF coke of better quality and in requisite quantity to meet the demand of higher hot metal production, usage of imported coal in the coal blend has been increased. The usage of imported coal in coal blend has been increased from about 10% during 1983-84 to about 47% during

1995-96. These steps have resulted in steady growth in production. For the last three years in succession the production of hot metal, crude steel and saleable steel have been above the rated capacity.

The availability and utilisation of various equipments are given below:

## AVAILABILITY & UTILISATION

(Unit : %)

| PERIOD | BLAST FURNACES | | BILLET & BLOOM MILL | | RAIL & STRL. MILL | |
|---|---|---|---|---|---|---|
| | AVLBLTY. | UTILSN. AS % OF AVLBLTY. | AVLBLTY. | UTILSN. AS % OF AVLBLTY. | AVLBLTY. | UTILSN. AS % OF AVLBLTY. |
| 1986-87 | 94.0 | 89.6 | 91.3 | 58.7 | 91.1 | 59.1 |
| 1987-88 | 87.9 | 85.1 | 92.9 | 62.8 | 90.2 | 58.6 |
| 1988-89 | 90.3 | 90.7 | 91.1 | 69.0 | 92.0 | 61.1 |
| 1989-90 | 92.5 | 93.2 | 92.0 | 71.4 | 91.3 | 62.4 |
| 1990-91 | 90.4 | 93.7 | 92.6 | 72.7 | 91.5 | 60.8 |
| 1991-92 | 93.8 | 94.3 | 92.5 | 75.6 | 92.5 | 61.6 |
| 1992-93 | 91.9 | 92.8 | 93.1 | 76.2 | 91.9 | 61.1 |
| 1993-94 | 93.2 | 93.6 | 93.2 | 79.6 | 92.7 | 63.3 |
| 1994-95 | 96.9 | 92.5 | 93.8 | 82.5 | 93.5 | 66.2 |
| 1995-96* | 93.1 | 96.6 | 93.5 | 81.4 | 94.5 | 66.8 |

| PERIOD | MERCHANT MILL | | WIRE RODE MILL | | PLATE MILL | |
|---|---|---|---|---|---|---|
| | AVLBLTY. | UTILSN. AS % OF AVLBLTY. | AVLBLTY. | UTILSN. AS % OF AVLBLTY. | AVLBLTY. | UTILSN. AS % OF AVLBLTY. |
| 1986-87 | 84.1 | 53.4 | 85.5 | 60.2 | 56.1 | 64.7 |
| 1987-88 | 84.6 | 59.5 | 82.4 | 58.0 | 54.3 | 64.6 |
| 1988-89 | 85.2 | 60.6 | 83.0 | 63.8 | 55.1 | 80.7 |
| 1989-90 | 84.0 | 64.1 | 83.8 | 68.9 | 56.6 | 77.5 |
| 1990-91 | 84.7 | 68.5 | 84.7 | 65.0 | 55.6 | 83.7 |
| 1991-92 | 85.2 | 69.1 | 84.0 | 65.1 | 56.2 | 86.6 |
| 1992-93 | 85.6 | 71.6 | 83.7 | 67.8 | 57.3 | 87.0 |
| 1993-94 | 84.8 | 74.0 | 83.6 | 72.5 | 56.3 | 90.4 |
| 1994-95 | 84.4 | 77.0 | 83.0 | 77.2 | 55.9 | 91.7 |
| 1995-96* | 87.9 | 77.4 | 86.3 | 79.4 | 69.5 | 92.6 |

*Excluding December '95

**Vetting Remarks of Audit**

No comments.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 9**

The Committee are unhappy to observe that the average pushing of ovens per day in the Coke Oven Batteries has been less than the capacity during the period 1978-79 to 1993-94. The production of coke during this period ranged between 75.20% to 91.16% of the capacity adopted by the management which was itself lower than the DPR norms. The Committee also note that the coking time had been higher than both the DPR norms (17 hrs.) as well as Norms Committee norms (18.5 hrs.) during the entire period. The reason advanced for the shortfall in production of coke and higher coking time was stated to be on account of shortage of coal due to which the batteries could not be operated to full potential and coking time had to be kept high. What the Committee are pained to point out is that the higher coking time caused damages to the brick work of the batteries necessitating an expenditure of Rs. 22.63 crores on extensive repairs. The Committee urge that all out efforts should be made by better planning to achieve optimum production at the coke oven batteries and to save the ovens from damages.

**Reply of Government of India (Ministry of Steel)**

The production at the coke oven batteries is not increased/decreased in isolation. Technologically the production at coke ovens is regulated to meet the requirement of BF coke for hot metal production at Blast Furnaces. The logistics and design also do not permit handling of excess generation of BF coke. The coking time depends on production rate. Since the off-take of BF coke improved as a result of higher hot metal production, the coking time has got reduced. The technological regime is adjusted to meet the requirement of BF coke maintaining health of the ovens and the brickwork is not allowed to get damaged. As a matter of fact, coking time was kept within the technological limits and no damage was caused. Full potential for production can be maintained by this. To ensure better life of the batteries the following measures are taken:

(i) consistent level of pushing as per target;

(ii) strict adherence to planned preventive maintenance;

(iii) incorporating latest hot repair techniques like ceramic welding; and

(iv) adherence to technological discipline and maintaining correct heating time as per pushing regime.

**Vetting Remarks of Audit**

The average actual coking time during 1994-95 to 1995-96 in respect of Coke Oven Batteries 1—8 was 19.9 hrs. and 19.8 hrs. and that of Coke Oven Battery-9 was 17.9 hrs. and 18.1 hrs. respectively, which is much higher than the Norms. Hence no comments.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

## CHAPTER IV

## RECOMMENDATIONS IN RESPECT OF WHICH REPLIES OF GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

### Recommendation No. 2

The Committee express serious concern over the delay in approval by Govt. to the final cost of the project. Although the project was completed in March, 1988. Its completion cost of Rs. 2288.63 crores had not been approved till the completion of examination of the subject by the Committee. This is reportedly due to want of final clearance from the Ministry of Environment and Forests. The Committee cannot but expect an early clearance for a project which has already been completed.

### Reply of Government of India (Ministry of Steel)

In the pre-PIB meeting held on 17.7.92 for completion cost of 4MT Expansion of Bhilai Steel Plant, it was recorded that environmental clearance had not been obtained and without it, it would not be possible to process the case for consideration by PIB. This is as per the prescribed procedure for project approval.

The 28 Pollution Control Action Plan Schemes initiated in April, '92 have been completed in October, '95 and this has been intimated to Ministry of Environment and Forests (MOEF) in November, '95 by SAIL Environment Management Department. *Vide* letter No. J-11011/32/81-IA(I) dtd. December 6, 1995, Dr. R. Warrier, Jt. Director, MOEF has asked the member Secretary, Madhya Pradesh Pollution Control Board to report on the status of Pollution Control Emissions from BSP. MOEF is understood to be awaiting the response of the Board to further process the case.

On the 11th April, '96, SAIL Environmental Management Department has again requested Addl. Director (S) MOEF for giving environmental clearance as all action plan schemes have since been completed and are working effectively. It is being further followed up by Bhilai Steel Plant Environmental Management Department with regional office as well as M.P. Pollution Control Board. The case for cost approval will thereafter be processed for consideration of PIB.

### Vetting Remarks of Audit

Bhilai Steel Plant management took up the issue with Ministry of Environment & Forests in July, 1996—for obtaining clearance. Afterwards there was no progress. The case is still pending with MOEF.

**Further Comments of Government of India (Ministry of Steel)**

Clearance from Ministry of Environment & Forests is still awaited.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Comments of the Committee**

Pl. *see* para '6' of Ch. 1

**Recommendaton No. 7**

The Committee are informed that one of the major constraints being faced by the company is shortage of indigenous coal of the desired quality resulting in the increase of imported coal. In fact the percentage of imported coal used at Bhilai Steel Plant increased from 37.1 percent in 1991-92 to 45.3 percent in 1994-95, the Committee desire that Govt. should take all possible steps to ensure sufficient availability of quality coal to BSP from domestic sources. The proposed transfer of some of the undeveloped washeries of Coal India Ltd. to SAIL should be finalised within three months under intimation to the Committee. At the same time, the port handling facilities also need to be improved/augmented in respect of imported coal.

**Reply of Government of India (Ministry of Steel)**

Some of the important steps being taken to improve availability of coal domestically to SAIL are:—

(i) Out of the four coal blocks namely Parabatpur, Sitanalla, Mahal and Tasra allotted to SAIL by the Screening Committee on 4th October, 1995, Tasra was found to be techno-economically feasible and quarriable. Pre-feasibility report for Tasra has been prepared. The techno-economics of other three blocks are being examined. BCCL/CIL have also been requested to furnish the required details on exploration cost. The amount of Rs. 3.53 crores towards exploration charges for Tasra coal block is expected to be deposited shortly on completion of the required formalities.

(ii) 'In principal' approval for formation of a joint venture coal company by SAIL has also been given. Notice for Invitation of Tender (NIT) for selection of joint venture partner will be issued after transfer of lease for Tasra coal block to SAIL.

(iii) SAIL has also been seeking certain mining blocks in west Bokaro coalfield for captive mining and the matter for the same was considered at the Screening Committee meeting of Ministry of Coal in April, 1996. In a recent meeting with CIL, it was agreed by them to consider a proposal for joint venture with SAIL in west Bokaro coalfied covering 10 medium coking coal blocks on the western side.

(iv) SAIL has also applied for power coal blocks for captive power

generation and the Screening Committee during its meeting on 3.4.1996 asked SAIL to examine the suitability of Talabira—II & III blocks in IB Valley Coalfied. These blocks were found suitable and a request has been made to Ministry of Coal to expedite the allocation.

As regards Port Handling facilities, SAIL has taken following measures:—

(i) SAIL has taken over a mechanised berth at Haldia for discharge of imported coal. This mechanised berth which was in a state of disrepair has been made operational;

(ii) SAIL has recently finalised with Haldia Dock Complex/CPT for acquisition of 22 acres of land inside HDC to be utilised for stacking imported coking coal.

(iii) SAIL has approached Port authorities at Vizag, Paradip and Haldia for installation of in-motion electronic weigh-bridges for weighment of imported coal wagons. Although some technical/operational problems were expressed, the matter is however, being followed up with the respective Port authorities.

(iv) Transport and Shipping Department of SAIL, which oversees Port Handling operations including discharge and despatch of imported coking coal, has been organizationally strengthened keeping in view the importance and need of this area of operation.

**Vetting Remarks of Audit against Recommendation Nos. 7 & 8**

No comments. The recommendations deal with supply of quality coal to Bhilai Steel Plant from domestic sources and co-ordination for better availability of wagons respectively. The action taken report may be awaited from Head Office.

**Further Comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Comments of the Committee**

Please *see* paragraph No. 9 of Chapter 1.

**Recommendation No. 18**

In view of the decreasing trend of production from Rajhara mines, a new iron ore deposit with more than 700 million tonnes of good quality iron ore at Rawghat (MP) was identified. The Committee are constrained to find that the mining lease which was granted by the Ministry of Steel and Mines in 1991 has not so far been approved by the MOEF. In the light of the critical position of ore availability, the Committee strongly recommend that Govt. should ensure clearance of the Rawghat mines within 3 months under intimation to the Committee.

**Reply of Government of India (Ministry of Steel)**

Government of India *vide* its letter No. 2(6)/95-BSP/SAIL-II dated 27.2.1996 has accorded Stage-I clearance for Rawghat Project at a cost of Rs. 12 crores for preparation of DPR as well as to take up other related preliminary activities for development of mechanised iron ore mines at Rawghat. This is to be completed within 18 months from the date of its sanction. However, forest clearance from the State and Central Governments is still awaited for this project.

The matter is continuing to be pursued with the State Government by both the Ministry of Steel, as well as by SAIL.

**Vetting Remarks of Audit**

No comments.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Comments of the Committee**

Please see paragraph No. 15 of Chapter 1.

**Recommendation No. 25**

The Committee note with a degree of satisfaction that the total manpower of BSP has come down to 53620 as on 1.4.1995 from 65189 as on 1.4.1986. However, they are concerned to observe that the outflow of Executives from SAIL has been on the rise. The percentage of executives who left SAIL increased from 0.86% in 1992-93 to 0.98% in 1993-94 and 1.22% in 1994-95. Evidently, the steps taken by SAIL to prevent the outflow of personnel from SAIL are not adequate. The Committee therefore, recommend that Govt. should look into this aspect seriously and ensure that exit of personnel from a specialised public undertaking like SAIL is arrested. They would also like to be apprised of the steps taken in this regard.

**Reply of Government of India (Ministry of Steel)**

The executives strength and the number of executives who resigned and left SAIL during the last three years are mentioned below:—

| Year | Executives Strength | No. Resigned | %age left |
|---|---|---|---|
| 1992-93 | 19681 | 170 | 0.86% |
| 1993-94 | 19746 | 195 | 0.98% |
| 1994-95 | 20117 | 247 | 1.22% |

As can be seen from above, the percentage increase in the resignations (of executives) from SAIL during the last three years is marginal. Even in absolute terms, the number of executives who have resigned and left is negligible keeping in view the total executive strength of SAIL.

Nevertheless, steps are being taken to motivate the employees and prevent outflow of executives from SAIL. As already mentioned in earlier reply to COPU, some of the steps taken in this regard include:—

— Revision of wage and salary structure, perks etc;

— Induction of state-of-the art technology with modernisation of steel plants, *inter-alia*, leading to better working conditions;

— Exercises for bringing about better organisational culture;

— Succession planning for key managerial positions;

— Stress on training and development of employees; and

— Organisation image building etc.

As can be seen from the above, executive turnover in SAIL, particularly on account of resignation, is quite negligible and there is no cause for concern. It may be relevant to mention that with the current image of SAIL, the Company is able to attract the best talent available in the country. The Company does not anticipate any adverse impact on performance because of a few resignations from the executive cadre.

**Vetting Remarks of Audit**

No comments.

**Further Comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No.12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Comments of the Committee**

Please *see* para no. 18 of Chapter-1.

## CHAPTER V

## RECOMMENDATIONS IN RESPECT OF WHICH FINAL REPLIES OF GOVERNMENT ARE STILL AWAITED

### Recommendation No. 5

The Committee are concerned to note that the private contractor, who was engaged to remove 15 lakh CM of open hearth muck and recover 1 lakh tonnes of scrap by December, 1973 and July, 1978 respectively, could not stick to the target and the balance work was executed through another contractor at the risk and cost of the defaulting contractor. The Committee are perturbed to note that this contractor, though selected through Open Tender, had hardly and direct experience in the field and their equipment had merely been hired by another company at Rourkela. What is worse, extensions were granted and escalations were also allowed to this contractor apprehending stopping of work. The company has since gone into liquidation. The Committee desire that the circumstances leading to the award of contract to a party having no experience in the field should be enquired into and responsibility fixed. They would also like to be informed of the outcome of the case relating to the recovery of Rs. 71.19 lakhs from the defaulting party.

### Reply of Government of India (Ministry of Steel)

As desired by Committee on Public Undertaking (COPU), a high level committee under the Chairmanship of DGM (Projects) was appointed by MD. BSP to enquire into the circumstances leading to the award of contract to M/s Bengal Bihar Construction Co. The Committee considered the following facts:—

For the subject work, open tenders were invited by the Plant; however the response was very poor i.e. out of eight parties who purchased the tender documents, only two parties came forward with quotation for carrying out the subject work. They were (1) M/s Vinay Engg. and (2) M/s BBC Co.

In addition, earlier M/s Thomas Mougat had submitted the rate for subject work and revalidated tender upto 31.12.72 but they had not submitted regular quotation against the call of open tender.

M/s Vinay Engg. had submitted an incomplete offer and they were not interested to take up the work connected with recovery of scrap processing. This party had also not deposited the Earnest Money alongwith the tender. They were also contending that Earnest Money will be deposited only at the time of awarding of work and this condition was not acceptable to BSP. This party was having only one crane and 5 tripping

trucks which were found insufficient to take up the subject work. This party was not having an experience in the field of removal of muck dump was well as recovery of scrap.

M/s BBC Co. had deposited the required earnest money. Though this party was not having direct experience for similar type and magnitude of work, they had done several works of handling transportation, removal of various materials and also informed BSP that their equipments were hired by M/s Hecket Engg. Co. at Rourkela. During this period, they had closely studied the method of recovery of scrap followed by M/s Heckett Engg. Co.

The list of equipments submitted by party was also considered sufficient to execute this work.

M/s Thomas Mougat & Co.: Though this party had not submitted their quotation against open tender, they had revalidated their quotation submitted earlier. But the party had indicated that they would commence the work 18 months after the award of work. This request was not acceptable to BSP. In response, party stated that they did not have the equipment to take up the work immediately and they had to go for fresh purchase of equipment and they also requested that for fresh purchase of equipment, clearance of Government of India would be necessary, for which BSP had to help them. In this regard party had given no firm commitment regarding early start of work. They also requested and advance of Rs. 3 crores.

The rates quoted by this party were very high. Under the circumstances, a High Level Committee had reviewed the case and recommended award of the work to M/s Bengal Bihar Constn. Co. based on the contention that party had possessed required equipments to execute the work, they would start the work within a week and they had not demanded any advance.

Under the circumstances of not having any other suitable party compared to M/s BBC Col., the decision of BSP to go for award of work to this party is reasonable.

Accordingly, keeping in view the above position, the Committee in their report have concluded that the decision of BSP to go ahead with the award of work to M/s Bengal Bihar Construction Co. under the circumstances prevailing at that time, was reasonable and above board and individual responsibility cannot be fixed.

Regarding recovery of Rs. 71.19 lakhs, a civil suit for recovery of aforesaid amount is pending in Calcutta High Court. As the defendant had not filed the written statement, the case was set for *exparte* hearing. The date has not yet been fixed. The outcome of the case will be intimated after settlement of the case.

**Vetting Remarks of Audit**

Managing Director, Bhilai Steel Plant constituted a Committee in April 1996, who have gone in details the circumstances under which that contract was awarded to M/s Bengal Bihar Construction Company. The Committee's report is enclosed for reference. The Committee did not consder any one responsible. As regards recovery of Rs. 71.19 lakhs, the Civil suit is still pending in High Court, Calcutta for finalisation.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 13**

The rated capacity of steel melting shop-I (SMS-I) is 25 lakhs tonnes of steel ingots per annum as per DPR. The production of ingot steel ranged from 66.30% to 96.6% of the rated capacity during the period 1978-79 to 1994-95. From June, 1990 onwards, three 500 tonnes furnaces and three twin hearth furnaces with a capacity of 27 lakh tonnes per annum have been in operation. But the Committee have been informed that the rated capacity has not yet been increased since the company first proposes to go over to the basic oxygen furnace which have several advantages like faster processes of steel making and capability to produce very low to high carbon steel etc. The Committee desire that the economics of introduction of basic oxygen furnaces should be worked out and a final decision in this regard should be taken within three months so that at least the amount to be spent on overhauling of old open hearth furnaces or the replacement by twin hearth furnaces could be avoided.

**Reply of Government of India (Ministry of Steel)**

Steel Melting Shop-I is an Open Hearth Furnace with a potential to produce 2.7 MT per annum of ingot steel. But due to non-availability of up-stream and down-stream balancing facilities namely oxygen supply at higher pressure and purity balancing facilities in stockyard, pit side, slag yard, stripper yard and secondary refining facilities for improving the quality of steel, it has not been possible to achieve the same. For installation of these facilities, a substantial amount of funds is required.

Introduction of Basic Oxygen Furnace (BOF) is definitely superior to OH steel making process as far as productivity, quality of steel making and final yield are concerned. But this also needs a major investment decision.

Based on MECON's recommendations and resource availability with SAIL, the production capacity of SMS-I is planned to be reduced and a new Steel Melting Shop (SMS-3) is proposed to be installed with a capacity of 1.3 MT through Convertor Concast Route during 9th Five Year Plan. The capacity of SMS-3 is proposed to be further increased during 10th Five Year Plan. SMS-I may thus be phased out at that point of time. The

decision in this regard will be taken depending upon the investment required *vis-a-vis* resource availability.

**Vetting Remarks of Audit**

No final decision in this regard as recommended by MECON (India) Ltd. has been taken so far.

**Further Comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Comments of the Committee**

Pl. *see* para 12 of Ch. 1

**Recommendation No. 15**

A scheme to enhance the capacity of steel melting shop-II from 1.5 MT to 1.7 MT was undertaken involving an investment of Rs. 15.76 crores. However, the capacity of the shop remained at 1.5 MT certainly because only the balancing facilities were implemented at a cost of Rs. 8.88 crores. However, the Committee observe that the production at SMS-II has been 105.87%, 107.93%, 108.87% and 109.07% during the years 1991-92 to 1994-95 respectively of the rated capacity. They therefore, desire that as assured by the Managing Director during evidence, an expert consultant should be appointed to review the rated capacity of SMS-II and the committee apprised of the outcome thereof.

**Reply of Government of India (Ministry of Steel)**

The production at SMS-II exceeded the rated capacity during the recent years, as a result of technological innovations carried out in-house, optimisation of product-mix and implementation of scheme to remove constraints by adding balancing facilities.

The case relating to review of rated capacity of SMS-II has already been referred to M/s MECON, an expert consultant for this purpose. It is under their active consideration. MECON has been requested to expedite the study/review.

**Vetting Remarks of Audit**

Since the scheme which was completed at a cost of Rs. 8.88 crores was for enhancing the rated capacity of SMS-2 from 1.5 MT to 1.7 MT, the rated capacity should have been increased after completion of the scheme as the production also increased correspondingly. On the recommendation of the Committee M/s MECON were appointed as consultant to review the rated capacity *vide* letter dated 29.3.96 (copy enclosed). The consultants' opinion is still awaited.

**Further Comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol. III dated 18.2.97]

**Recommendation No. 21**

The Committee are astonished to find that BSP to pay royalty on even the rejects arising from crushing. Since the crushing plant at Nandini is situated outside the mining lease of BSP, the entire quantity of ROM ore raised from the mine has, therefore, to be sent to crushing plant. During 1978-79 to 1994-95, the amount of royalty paid on rejects was Rs.4.24 crores. The Committee desire that the matter should be taken up at the highest level so that the royalty paid by BSP on rejects is reimbursed to it. For future also, either the BSP should be exempted from payment of royalty on rejects or additional mining lease should be given to it. The committee would like to be informed of the final outcome in the matter.

**Reply of Government of India (Ministry of Steel)**

BSP had applied for mining lease separately to cover the crushing plant of Nandini. But the Ministry of Mines has opined that for crushing plant no mining lease can be granted.

BSP has, therefore, filed an application on 18.3.1996 for renewal of mining lease for Nandini Mines over 571 hectors, which includes additionally crushing plant area (40.42 hectors) also so that this anomaly of payment of royalty on rejects is resolved for all times.

BSP have also requested Principal Secretary, Mining Resources Department, Government of M.P., Bhopal vide their letter No. GM(M&Q)/96/1660 dated 10.7.1996 for refund/adjustment of royalty amount of Rs.4.24 crores paid towards rejects.

**Vetting Remarks of audit**

No comments. A copy of application dated 18.3.1996 for renewal of lease of Nandini Mines, letter addressed to Principal Secretary for refund of royalty of Rs. 4.24 crores is enclosed.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol.III dated 18.2.97]

**Recommendation No. 27**

During 1984-85 to 1988-89, the shortage in receipt of indigenous coal beyond the norms of 5% was to the extent of Rs.10.57 crores. There was also a shortage in receipt of imported coal valuing Rs.22.58 crores during 1987-88 to 1991-92. The Committee are disagree with the contention of SAIL that it was the responsibility of Railways and Coal India Ltd. to ensure supply of the correct quantity of coal. They expect that with the reported introduction of joint inspection by SAIL and CIL in regard to quantity and quality such shortage would not occur in future. In regard to

imported coal also, the committee desire that foolproof arrangements including provision of electronic weigh-bridges at the port should be made in order to avoid loss on this account.

**Reply of Government of India (Ministry of Steel)**

The system of Joint Inspection of quantity and quality of indigenous coal at loading point by SAIL and CIL is already in vogue.While this system can ensure proper loading at the loading end, SAIL is considering escorting of rakes from loading to the destination points for curbing shortages in indigenous coal. A trial is being made between Munidih Washery and Bokaro and after evaluating the results, a decision will be taken for extending the facility to all loading and destination points including Bhilai.

As regards installation of electronic Weigh Bridges at the Ports, SAIL has approached Port authorities at Vizag, Paradip and Haldia for installation of in-motion Electronic Weigh-Bridges for weighment of imported coal wagons. Although some technical/operational problems were expressed, the matter is however being followed up with the respective Port authorities.

**Vetting Remarks of Audit**

No comments.

**Further comments of Government of India (Ministry of Steel)**

No further comments.

[Ministry of Steel O.M. No. 12(22)/93-BSP/SAIL-II/Vol.III dated 18.2.97]

NEW DELHI;
*April 25, 1997*
*Vaisakha* 5, 1919 *(S)*

G. VENKAT SWAMY,
*Chairman,*
*Committee on Public Undertakings.*

## APPENDIX I

## MINUTES OF THE TWENTY-SECOND SITTING OF THE COMMITTEE ON PUBLIC UNDERTAKINGS HELD ON 21ST APRIL, 1997

The Committee sat from 1500 hrs. to 1615 hrs.

PRESENT

Shri G. Venkat Swamy—*Chairman*

MEMBERS

*Lok Sabha*

2. Shri Parasram Bhardwaj
3. Shri Somjibhai Damor
4. Shri Banwarilal Purohit
5. Shri Brij Bhushan Tiwary
6. Prof. (Smt.) Rita Verma

*Rajya Sabha*

7. Shri Vayalar Ravi
8. Shri Solipeta Ramachandra Reddy

SECRETARIAT

1. Shri J.P. Ratnesh—*Joint Secretary*
2. Smt. P.K. Sandhu—*Director*
3. Shri P.K. Grover—*Dy. Secretary*
4. Shri Raj Kumar—*Assistant Director*

OFFICE OF THE COMPTROLLER & AUDITOR GENERAL OF INDIA

Shri B.B. Pandit — *Principal Director (Comml.)*

2. The Committee considered the draft report on Action Taken by the Government on the recommendations contained in 53rd Report of the Committee on Public Undertakings (1995-96) on Steel Authority of India Limited—Bhilai Steel Plant and adopted the same with the following modifications:

(i) page 3, para 6, line 6-7 for the words "The Committee.....withheld" substitute.

"The Committee expressed serious concern over the fact that clearance has not been given"

(ii) page 3, para 6, line 11, after "environmental clearance" add "within three months"

3. *** *** ***

4. ***

*** ***

5. ***

*** ***

The officers of C&AG then withdrew.

6. *** *** ***

7. The Committee authorised the Chairman to finalise the Reports on the basis of factual verification by Ministries/Undertakings concern/Audit and to present the same to Parliament.

*The Committee then adjourned.*

*** Minutes relating to items at Para No. 3, 4, 5 and 6 have been kept separately.

## APPENDIX II

## ANALYSIS OF THE ACTION TAKEN BY GOVERNMENT ON THE RECOMMENDATIONS CONTAINED IN THE 53RD REPORT (10TH L.S.) OF THE COMMITTEE ON PUBLIC UNDERTAKINGS (1995-96) ON STEEL AUTHORITY OF INDIA LIMITED—BHILAI STEEL PLANT.

| | | |
|---|---|---|
| I. | Total number of Recommendations | 27 |
| II. | Recommendations that have been accepted by the Government (*vide* recommendations at Sl. Nos. 1, 3, 4, 8, 10, 11, 12, 14, 16, 17, 19, 20, 22 to 24 and 26 | 16 |
| | Percentage to total | 59.26% |
| III. | Recommendations which the Committee do not desire to pursue in view of the Government's replies (*vide* recommendations Sl. Nos. 6 & 9) | 2 |
| | Percentage to total | 7.40% |
| IV. | Recommendations in respect of which replies of Government have not been accepted by the Committee (*vide* recommendations at Sl. Nos. 2, 7, 18 and 25) | 4 |
| | Percentage to total | 14.81% |
| V. | Recommendations in respect of which final replies of Government are still awaited (*vide* recommendations at Sl. Nos. 5, 13, 15, 21 and 27) | 5 |
| | Percentage to total | 18.51% |